

A copy of this Health Memoranda is to be issued to each recruit  
on enlistment.

**ARMY FORM B 51.**

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# Health Memoranda for Soldiers.



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## INTRODUCTION.

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This booklet should be read over and over again, and each individual should constantly bear in mind that, although commanding officers are responsible for the health of those under them, every soldier must also himself look after his own health and do all in his power to preserve it.

These memoranda have been written in the form of a booklet in the hope that they may be of help to individual non-commissioned officers and men, and that they may serve as a text for officers who may desire to instruct men in the art of healthy living in the circumstances of army life.



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# HEALTH MEMORANDA FOR SOLDIERS

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## *Talks to Young Soldiers*

It should be a point of honour with a soldier to be fit and healthy, and able to fight and march with the best. This pamphlet is written to help you to learn how this may be attained. Most of what is printed below is only common knowledge, but it is frequently neglected. The aim of this booklet is to teach you the simple art of healthy living. This is carefully followed in the management of domestic animals, such as the horse and dog, but is forgotten in the case of men.

It should be the pride of a soldier to do everything in his power to avoid being sick in hospital; his ambition should be to keep fit for duty. It is the especial duty of officers of the Royal Army Medical Corps to prevent sickness. This can only be done with the help of the men themselves, and they should know as much of the subject as may be needful.

### *Cleanliness*

In old times the teaching of cleanliness was a part of religion, and this is still the case among Eastern peoples.

Dirt does not exist in nature; matter only becomes dirt when it is in the wrong place. Sand on the sea shore is clean and in its proper place, but the same sand in the mechanism of your rifle becomes dirt, and must be removed.

The refuse and waste that accumulate about men and their dwellings are the most dangerous forms of dirt, and the main cause of preventable disease.

Discipline is an aid to cleanliness. If it be relaxed in barracks, there is produced a state similar to that existing in crowded and badly-governed towns. Each man in the depot or regiment is directly interested for his own sake, as well as for that of his comrades, in helping to carry out this kind of discipline, and each should understand the subject clearly. This personal view of the question is especially important for soldiers, and will make the difference between an efficient and an inefficient military

force. Experience teaches us that diseases of the class that may be prevented are capable of causing more casualties than hardships or bullets in war, and have frequently done so in past wars, before the importance of taking steps to prevent them was realised.

### *Personal Cleanliness*

The skin is a covering for protection, and for getting rid of water in the form of sweat. The action of the skin is increased by exercise, as well as by other causes. Sweat is not pure water, but water full of impurities that must be removed. These, when allowed to remain and dry on the surface of the skin, or soak into the clothing, are irritating and unhealthy, besides being offensive.

Most men wash their faces and hands, but parts covered by clothes are often forgotten. The following should be washed every day if it is not possible to have some form of bath:—

1. Between the legs and buttocks.
2. The feet and toes.
3. The armpits.

This can be done at any time during the day when you have a spare quarter of an hour. It is well to have a small piece of rough towelling which can be wetted in the water and used as a rubber. Sponges are not necessary. All soap should be washed off before rubbing dry.

In addition to this daily washing, a warm bath once or twice a week is necessary. It is well to avoid bathing for two hours after meals; this especially applies to deep-water bathing. The rubbing and grooming that accompany washing and bathing aid in keeping the skin active and healthy, and improve the state of the blood and the circulation. A good groom brushes and hand rubs his horse all over daily, and carefully washes with a wet cloth the mouth, the nostrils, and between the legs. Cleanliness is even more necessary in the case of men, who wear clothes.

Mounted men should pay particular attention to regular washing of the inside of the thighs, in order to prevent blistering from the saddle.

As a general rule water for washing should be neither hot nor

cold; lukewarm water is the safest and best. Cold water, however, answers very well, especially if used in a basin with a rough rubber. Cold water used in this way is a tonic, and braces one up.

Before leaving the subject of washing, remember to wash your hands *before* eating, and when washing the hands trim and clean the nails. It is a simple matter to acquire the habit of keeping the nails clean and in good order. The finger nails should be cut round, and the toe nails straight across.

The hair must be kept closely cut, and the head should be frequently washed. If you discover signs of lice, or nits, on your clothing or in the hair, you should report the matter at once, so that they may be destroyed.

#### *Clothing*

Closely connected with the care of the skin is clean clothing. Dirt from the clothes reaches the skin, and dirt and sweat from the skin soak into the clothing. Hence the reason for change and washing of underclothing once a week.

The same clothes should not be worn day and night. With three shirts it is possible to keep one for night wear. The night shirt is always a stand-by in emergency, such as a wetting. If drawers are worn at night, a pair ought to be kept for the purpose.

Socks quickly get dirty, and the custom of some men is to continue to wear one pair for a week. By this want of arrangement it is impossible to preserve hard, clean feet. Two pairs of socks should be in use, one for morning and one for evening wear.

Boots, socks, and feet require the most careful attention by everybody, but especially by the soldier, whose usefulness and comfort when marching depend on the state of his feet. The soldier's boots, socks, and feet, should receive as much care as his rifle. The regulation boot is now excellent, but it must be kept soft, and kept clean inside. The inside should be exposed to the air as often as possible. "Walking out" boots made narrow across the toes should never be worn, as they cramp and spoil the toes. Two pairs of boots ought to be kept in use, and shoes worn whenever opportunity offers.

If wet boots are placed before a fire they will be damaged. It is well to remember, especially on service, that boots can be dried without damage by putting some dried straw or woollen material inside or around them, and then holding them before a fire, but at some distance from it.

In order to soften the leather of the military boot, the boot should be first soaked in water. When the leather has become soft from absorbed water, it should be dried with a cloth, and afterwards smeared with grease, and then placed in the sun or at some distance from a fire. Greasing should be repeated at frequent intervals.

Underclothes as well as overclothes may be made cleaner by shaking, brushing, and exposure to the sun and air. This is nearly always possible even when washing cannot be managed, as on the line of march or in camp, when water may be difficult to get for washing purposes. When possible, however, under-clothing should be washed weekly, or oftener, if necessary.

#### *Care of the Teeth*

The decay of teeth is usually caused by particles of food becoming attached to the surfaces of the teeth or lodging between adjacent teeth. These particles putrefy and acid forms which eats into the teeth substance, so commencing the decay.

In order to avoid this it is necessary to keep the teeth as clean as possible. The grinding action of the teeth on hard food cleans them to a certain extent, but it is not enough; you must use a tooth brush. The latter article is included as part of a soldier's kit, and should not only be kept for its proper purpose—that is, brushing the teeth—but conscientiously and regularly used.

A new tooth brush should be soaked in water for some hours before use, to clean it and soften the bristles. Hard bristles injure the gums.

To clean the teeth the mouth should be rinsed with water, a small amount of tooth-powder or tooth-paste put on the brush, and the teeth (both back and front) brushed on all surfaces, particular attention being paid to the spaces between the teeth. An "up and down" action will remove particles from between

the teeth and a slightly circular action will clean the surface of the teeth. Teeth should be brushed twice a day; it is especially important to do so before going to bed, so as to remove particles of food after the evening meal. The mouth should be washed out every morning. A toothpick is most useful for removing food particles from between the teeth.

Many soldiers suffer from spongy, bleeding gums caused by neglect. At first the tooth brush may cause a little inconvenience, but continued use will cause the gums to become more firm and healthy.

The presence of decaying or painful teeth should be reported to the dental officer.

### *Fresh Air*

The air we breathe is, for us, the most important thing in the world: it is "the breath of life." Although we cannot do without air that is fresh, we forget the fact, and pollute it by shutting it up in our houses and rooms. We require fresh air by night as well as by day; and yet many consider "night air" harmful. The importance of fresh air is now well known, but, especially in former years, soldiers often died from disease resulting from breathing impure air over and over again. Barrack rooms were foul, stuffy, and dark. The sluggish air was frequently loaded with impurities from the breath, especially the germs of consumption. Now all this is changed, and your rooms have plenty of light and air. At present there is not much danger to the soldier from impure air during the daytime, but in many barrack rooms the windows are tightly shut at night, and ventilators are stuffed with paper and rags. Fortunately, a little air penetrates through cracks and crannies, and badly fitted doors and windows, which also allow some of the poisonous air to escape. But these driblets of air are not enough: it is necessary to open the windows. This can be arranged without draught by opening them on one side of the room for about one foot at the top: every window ought also to be widely opened top and bottom in the morning, in order to flush the room with fresh air. Every man ought to under-

stand the importance of breathing fresh, pure air. If you feel too much air or draught, either in a room, or in a camp or bivouac, wear your woollen cap. The test of good ventilation in a room is simple. There should be no unpleasant smell or stuffiness perceptible to any one suddenly entering from the outside fresh air. Persons who have been in an impure atmosphere for some time do not notice it, as their sense of smell becomes blunted from breathing the impure air.

### *Food and Feeding*

This is a subject which interests us all, and many of our enjoyments are associated with it. We commence the day well or ill, as we get a good or a bad breakfast, and retire happily or uncomfortably to bed, as we have eaten a well- or ill-cooked supper.

The troops have the care of their food from the time it is handed over by the contractor until it is eaten, and if it is not satisfactory the fault is largely the soldier's.

The former custom of the soldier eating his meals in the barrack room has now given place to the dining-hall system, which does away with the objectionable practice of eating in the same room as that in which you sleep.

Let us trace out what ought to be done by the store-men, the cooks, and the orderly-men :—

1. The hands and clothes of all persons who handle food, or cooking utensils, should be scrupulously clean.
2. The bread and meat stores should be kept scrupulously clean, tidy, and cool, well ventilated, and free from flies.
3. The kitchen and all its fittings, such as tables, safes, and shelves, as well as cooking utensils, should be clean. The cook and his assistants should be particularly clean, and should wear clean washing overalls. Flies should not be allowed to gain access to the food. They carry minute portions of filth on their feet and contaminate all they touch.
4. The orderly-men should be clean and supplied with a sufficient number of cloths for washing up.

Food is the source of bodily strength, and the more work there is to accomplish, the greater the amount of food required. This is especially the case in war time. A sufficient quantity of food ensures a threefold result: the soldier marches better, he can stand cold better, and he resists disease better. On the other hand, excess in eating and drinking must be avoided. Food should be thoroughly chewed and not "bolted."

When the body is fatigued, or hot after exercise, it is better to wait a little before eating or drinking.

Articles of food that smell or are disagreeable to the taste should not be eaten.

Ripe fruit should always be peeled or skinned. Unripe or over-ripe fruit is apt to cause diarrhoea, and when such diseases as dysentery, typhoid fever, or cholera are about it should especially be avoided. Any man employed in the cooking, preparation, or serving of food should, if suffering from diarrhoea, report sick at once.

#### *What shall we Drink?*

No desire is so urgent as that to satisfy thirst. If it cannot be gratified it causes terrible suffering: water is the greatest need in life.

Water is the important and essential part of all our drinks.

In civilized countries the subject of what to drink has caused much discussion. Controversy regarding it has existed in a more or less acute form from the earliest times. The nearer we keep to water the better; but, on the other hand, *all* alcoholic drinks cannot be shown to be harmful when taken in strict moderation. The danger is in taking excess, and that is easily reached.

Now to answer the question at the head of this subject.

The best drink is water, cold and pure. If the purity be doubtful it is safest to boil the water, and, when possible, make it into weak tea. This should always be done with water such as you may find abroad when camping or marching, which is always to be considered unsafe.

Aerated waters bottled by reliable manufacturers are generally wholesome.

Good coffee is an excellent beverage, but is difficult to make properly. It ought to be made weak, and mixed with boiling milk.

Cocoa is much used in the present day. Heavy, thick cocoa advertised to contain much nourishment should be avoided. A thin cocoa which mixes readily with water is best.

Lemonade made with fresh lemons, sugar, and boiling water is a very wholesome beverage in summer time, or in hot countries: it should be allowed to cool before being drunk.

These, and some others, are non-alcoholic drinks. It may be said that all require to be taken with moderation, even water itself.

All alcoholic drinks, when taken in excess, are likely to do harm to both body and mind. The safest and best within your reach is light ale. In strict moderation, and if you take hard out-of-door exercise, it will not hurt you. It is wise to take it with, or after, meals.

Spirits of any kind are, without doubt, harmful, and are better avoided altogether.

In conclusion, it is a common error to suppose that intoxicating drinks are necessary for healthy men: men are better without them, but in any case they ought to be used with caution and never abused.

### *Smoking*

There are various opinions on this subject. Smoking affects people differently. Some it soothes and pleases, in others causes nervousness, palpitation, and indigestion.

If you have never smoked it is safe to recommend you not to commence. All are agreed that it is harmful for the young, the nervous, and those who are undergoing training.

The chief ill-effects of tobacco are directed against the heart, producing palpitation and irregularity. It also affects the digestion and the sight.

Cheap cigarettes are the worst (although the most popular) form of tobacco. The best thing to smoke is a good clean pipe, with good mild or medium smoking mixture. When smoking you should not spit, as it dries the mouth and interferes with digestion. If smoking does not agree with you, leave it off.

### *Spitting*

The spittle or saliva is intended to keep the mouth moist and soft and assist digestion. Such substances as bread, biscuit, rice, and pastry require to be well mixed with the saliva in the mouth before swallowing in order that they may be perfectly digested.

By the habit of spitting you waste this useful substance which is necessary in the mouth, but becomes a nuisance and a danger on the floor.

Besides fouling the floors and side paths, it may be the means of carrying infectious disease from sick to healthy persons : this is the chief way consumption and certain other diseases are spread. Nobody ought to spit on floors, passages, side walks, or in any train, carriage or steamer, or in any public place, as by so doing dirt is produced where it cannot easily be removed, furniture and clothing get soiled, and many diseases, including those of the mouth, throat, and lungs, are spread.

### *The Barrack Room*

Where a number of men live together, the greatest good for the greatest number is a safe motto, and this should be the rule in the barrack room. The state of the room you have to live in depends on yourselves individually ; if every man is clean and tidy, all benefit alike. Everything should be kept clean, dust and refuse of every kind should be removed ; floors, walls, windows, doors, paintwork, cupboards, all should be perfectly clean. The beds and bedding, your clothes, boots and kit boxes, should always be clean and tidy. The tables and forms should be scrubbed. The windows should be wide open, all day when possible, and the upper sashes open at least one foot at night all the year round.

The same attention should be given to lavatories, urinals, w.c.'s, baths, and the ground round the barracks.

Do not keep any food in the barrack room. It will not keep fresh, but will only attract rats and mice.

An article of kit almost always neglected is the hair brush. A hair brush, like other things, requires frequent washing. say

every fortnight or three weeks. Do not use soap or hot water, and do not dry it near the fire. The following is the proper way to wash your hair brush :—Put about a teaspoonful of washing soda into half a basin of cold water, hold the brush in the hand by the back, and wash the bristles by dabbing it up and down near the surface, so as not to wet the back. Shake out the water briskly by swinging, and place it to dry in the air or wind, *not* in the sun or near a fire. It is advisable to finish the washing by rinsing in plain water before drying. A little ammonia may be used in the same way with good effect.

### *Leisure Hours*

Every day you have a certain amount of spare time—on how you spend this depends to a large extent your mental as well as your physical well-being.

Numerous facilities are available in barracks for your entertainment, recreation, and education ; and it is both to your own advantage and to the advantage of your unit that you make full use of them.

There are libraries from which you can borrow books of all sorts : and the regimental institutes provide indoor games, entertainments, and concerts. Then there are, in addition to the Army Schools, classes of instruction in professional and technical subjects, so that you can fit yourself for life after you leave the army.

Football and hockey in winter, cricket in summer, and athletic sports afford ample opportunities for outdoor recreation : while boxing, besides being a splendid form of exercise, teaches a man self-reliance and self-control—qualities essential in a good soldier.

By availing yourself of these opportunities to the full, you will not find your spare time hang heavily, and you will keep yourself from drifting into slack and undesirable habits.

### *The Question of Chastity*

For your own sakes be chaste, in order to avoid the risks of disease spread by infected persons.

Self-control in this respect may seem to you out of harmony with your nature, but for all that it must be practised.

Venereal diseases are extremely common amongst loose women in all parts of the world. These diseases are highly contagious, and are directly responsible for a large amount of the misery and poverty which exists almost everywhere.

A considerable proportion of the blindness in the world is the direct outcome of Gonorrhœa, and it is a well-known medical fact that many forms of insanity and paralysis are due to Syphilis.

When once a man's constitution is infected by a venereal disease, unless he is treated carefully over a prolonged period, the disease is liable to occur again and again in many forms all through his life, and to be transmitted, with all its attendant misery, to his children.

A soldier who has contracted one of these diseases, and has not been completely cured, is not fit to go on active service, and the regiment will suffer accordingly when men have to be kept back from going to the front on this account.

Surely it is not worth running the risk of getting infected with these diseases.

#### *Service Abroad*

This usually means India, or some other tropical station. There you find a great deal of your present routine life, but the climate will be different, it will be much hotter, and you should be prepared to make some changes to suit these new conditions. By following carefully the rules already laid down, with even stricter attention to cleanliness, moderation, and temperance, you cannot go far wrong.

Heat by itself is not dangerous to health, and with care and commonsense ought not to affect your comfort.

The chief dangers to be avoided are disorders of digestion and fevers.

The principal fevers are:—

- (1) Malarial fever or the old term "Ague".
- (2) Typhoid fevers.
- (3) Sandfly fever.
- (4) Heat stroke.

### *Malarial Fevers*

These are *always* due to infection with the malarial parasite introduced by the bite of an infected mosquito. To avoid being bitten and infected, sleep always under a mosquito net during the mosquito season. The dangerous season is usually notified in Orders. Train journeys and especially temporary halts at camps are particularly dangerous. There are other methods of protection available for use when you are not in a mosquito net ; such as avoidance of shorts and wearing long sleeves after sun-down ; the use of anti-mosquito ointments such as Dover's Cream or Bamber Oil and the killing of mosquitoes by spraying rooms, quarters, tents or carriages with insect killing spray solutions.

Mosquitoes breed by laying their eggs in small collections of waters such as in pools, ponds, buckets and any vessels or tins which can hold water. All such collections of water about or near barracks or married quarters must be carefully watched and where possible dried out once a week or treated with oil.

If you feel feverish with shivering and aches in your head or limbs from what may be malaria, do not try to dose yourself but report to a medical officer for proper examination and treatment.

### *Typhoid Fever*

This is a fever connected with dirt, especially badly cared for latrines, urinals, &c. ; and the infection may be swallowed with contaminated water, food or drink.

Flies are especially to be warned against, as they are the chief means by which infection is carried from the filth of latrines to food. Whenever many flies are about, you may be sure that their breeding places are near, or that there is refuse of some kind or other attracting them. They breed chiefly in horse dung and stable-litter, and feed on, and are attracted by, kitchen refuse.

It is necessary, therefore, to remove and burn all horse droppings and refuse of any kind if you want to prevent the danger as well as the inconvenience of flies. This is of special importance in standing camps where typhoid fever is very liable to be carried in the above manner.

Where flies occur, in spite of all precautions and attempts to

prevent their breeding, it will be necessary to protect your food from them by the use of gauze covers.

The precautions against this disease then are cleanliness of your food, person, and surroundings, and last, but not least, soldiers can be specially protected from the risks of this disease, to which they are always exposed on active service or in stations abroad, by being inoculated with a material which produces in their blood substances which protect them against the typhoid fever germ.

This protective inoculation causes, as a rule, merely trivial and temporary inconvenience to the individual inoculated.

Since the year 1906 large numbers of men proceeding abroad have volunteered to be inoculated; and the majority of enlightened men now appreciate the value of this extra safeguard against illness.

The results have been very marked. The British Expeditionary Force of 1914 was well inoculated, with the result that during the Great War only one man in every thousand contracted typhoid fever, and it was quite a mild disease among those who had been previously inoculated. During the whole five years of the war, in this Force, whose strength averaged 1,200,000, only 266 men died of typhoid fever.

Results such as these speak for themselves, and it is strongly urged that every man, for his own and his comrades' sake, should be inoculated before proceeding abroad.

#### *Sandfly Fever*

This fever is always due to infection by the bite of infected sandflies. These are small, whitish, hairy flies which infest buildings close to their breeding places. The larval (young) flies breed in moist earth amongst heaps of brick rubble, mud bricks, broken stones, or in old drains and broken buildings. They move with a quick, hopping flight and bite viciously. They are so small that they can go through the ordinary mosquito net and a sandfly net is necessary to keep them out. Protection can be obtained by using Dover's Cream or Bamber Oil, by avoiding shorts or short sleeved shirts, by wearing thick socks, by spraying all rooms and quarters with insect killing solutions and by

clearing away breeding places round barracks and married quarters.

### *Heat Stroke*

This is caused by over heating of the body without allowing the body to regulate its heat by loss through sweating or cold air on the skin.

The sun's heat and glare can produce headaches through the eyes, and a feeling of uncomfortable bodily heat, and can also produce very severe sunburn to those unaccustomed to it.

In countries where such heat is intense a sun helmet is usually worn to protect the eyes and keep the head cool. You should and must use common sense and your helmet when the effects of the sun are severe. But the old idea of a sun helmet from dawn to dusk is now considered to be not necessary. Protection for the eyes is the more important. If the heat is great *and the air moist* the skin and body should be kept cool by reducing clothing to a minimum and by getting all the ventilation possible ; by reducing the heat produced through exertion or exercise and by avoiding over indulgence in alcohol or food and by preventing constipation.

Keep your body clean inside and out, use common sense and take the advice of those who know. Then neither hard work nor heat will do you any serious harm.

### *Disorders of Digestion*

These may usually be avoided if attention is paid to the following rules :—

1. Never, if you can help it, leave barracks without an early morning meal. A cup of cocoa and a biscuit or bread are recommended, but coffee or tea are equally useful, or even boiled water. Pasteurized milk is a safe and excellent substitute for any of the above.
2. Avoid constipation (*i.e.* being bound in your inside). This is mostly due to improper feeding, or eating too quickly. The ration of meat is quite sufficient, and you do not require any more. Some men spend money on extra meat in the form of pork, hot curries, fried eggs.

If you wish to spend money to supplement your ration put it into extra vegetables and fruit, or jam, oatmeal porridge, and butter.

3. Do not take powerful purgatives without advice, but get proper medicine from a medical officer.
4. If your bowels get out of order, don't neglect to report sick, it may be nothing beyond a simple "chill"; on the other hand, it may be the beginning of an illness which, if not properly treated at once, may turn out to be very serious and even fatal.
5. A common source of illness in hot countries is chill. Cold is a greater danger than heat. The shirt should always be changed when wet. It is dirty and unhealthy to continue wearing one shirt day and night for a week, as it becomes soaked with stale and irritating perspiration.

Food and drink require great care in cooking and keeping. Dirt and other sources of contamination are everywhere. (Much is left in the hands of natives without proper supervision.) You can all help to look after your own interests if you will: it is each man's particular business. No food ought to be kept and eaten cold, as it quickly develops poisons. If it is absolutely necessary to keep cooked food, always try to cover it with something, such as a clean plate, &c.

In most military stations the drinking water is carefully selected, and may be considered *beyond suspicion*, but on the line of march, or when on shooting pass, or in camp, water is to be regarded as of doubtful quality. In such cases it should be boiled before being used, and it is better to make it into weak tea. Sufficient weak tea should be made for present use, and some over to drink when cold.

To make tea properly, place a teaspoonful of tea in a clean warm vessel for each pint required. Pour freshly boiling water over it, allow it to stand for three or four minutes, not longer, and then pour off.

### *Marching*

On the day before a march, clothing, socks, and boots should

be examined and repaired if required, and for the first few days' march socks should be soaped inside. Before marching the body should be cleansed. Food and drink in moderation and as much sleep as possible should be taken.

The water-bottle should be filled with boiled or purified water or with cold tea without milk.

*Only use the water or tea in your bottles.* Drink sparingly, so as to spread out the water over the duration of the march. Never take a large quantity of water at one draught when the body is overheated, as bad effects may result. Instead of drinking a large quantity at once, first moisten the lips and mouth, and then drink small quantities at a time.

It is usually undesirable to drink during the first  $7\frac{1}{2}$  miles or first two or three hours of a march. After that the contents of your water-bottle will probably last you for the next  $7\frac{1}{2}$  miles, and so on. A very little self-control will enable you to keep within these limits, and the habit once acquired will remain.

A stooping position should be avoided in marching. Avoid speaking or smoking while going up hill or marching against a wind. Do not leave the ranks except for necessary purposes, as even a short run to catch up your company adds to the fatigue of the march.

During the halts rest as much as possible. The best way to do this is to take off your equipment and lie flat on your back.

Never lie on damp ground when it can be possibly avoided, but select dry ground, or collect straw, hay, or branches of shrubs, and lie on these.

On halting for the day the first thing to do is to examine the feet. Inflamed feet should be bathed and powdered if possible. It is a good plan to rub the feet with salt and alum dissolved in warm water. If they are blistered, have them attended to by the regimental chiropodist: don't attempt to prick the blisters yourself, you may set up blood-poisoning. In severe footsoreness the advice of the medical officer should be sought at the earliest opportunity.

When the halt is made, socks must be examined and flattened out if they are wrinkled. It is a good plan to put the left foot

sock on the right foot and the right sock on the left foot. If they are saturated with perspiration put on a clean pair if possible. Carry a pair of light shoes in your " pack " and put them on immediately you get into camp.

Wash the face, neck, feet, and hands, or wipe them with a damp cloth. This will help to remove fatigue after the march.

### *Active Service*

On active service the health and comfort of troops are even more important than during times of peace.

The chief danger is not from the enemy, but from disease bred in one's own camp.

The hints given in the section under Service Abroad (p. 11) apply with greater force to the conditions of active service, and every one should understand the importance of helping to look after his own health and sanitation. [Everything that depresses the mind or weakens the body must be avoided.]

The great danger to an army in the field is bad sanitary arrangements.

The most serious diseases that arise from sanitary neglect are dysentery, typhoid fever, cholera, and typhus fever; the first three spread from infected water, dust and fly-infected food and neglected dirty latrines, typhus being spread by lice.

**WATER.**—Soldiers should train themselves to drink in great moderation when undergoing exertion. Drinking requires thought. Men rush at water and drink more than is necessary. Great restraint should be taught and practised even in drinking good water: it should be remembered that very little is required during a march, especially early in the day, just enough to moisten the mouth and a little to swallow will be sufficient. The more you drink the fuller you feel, the more you will want, and the more you will sweat.

Only use water that has been passed as good.

If you must drink bad water boil it before using, or, still better, make it into weak tea, without milk: it can then be drunk hot or cold.

Remember that enteric fever, cholera, and other diseases are

often spread by drinking water infected with the germs of the disease.

LATRINES.—These are chiefly responsible for the spread of the germs of typhoid fever and dysentery. The latter soak into or are washed into the water supply, or the contents dry and are blown about as dust, or may be conveyed by flies to your food.

[This was known in very early times, and rules were framed to prevent disease from spreading in camps. Moses, an able leader and sanitary officer, who received his training in Egypt, ordered that each man should carry a small spade on the hilt of his spear, so as to dig and cover up when he went abroad to ease himself, and this is still the best way of managing: everything passed should be covered up *at once*.]

#### *Trench Foot*

This is a condition which is liable to come on when you have to man trenches in cold wet weather. The feet become chilled, numb, swollen, and blanched, and even gangrene may develop. The condition is due to a combination of dampness, tight puttees and boots, inactivity and a strained or cramped position.

You can help to prevent it by keeping your feet clean, by daily removal of boots and rubbing of the feet, by frequent changing of socks, which should be dusted inside with camphorated talc powder. You should move about as much as circumstances permit and have your puttees and bootlaces loose. The trenches should be kept as dry as possible, and duck boards used if available.

#### *General Rules to Prevent Disease*

The following rules, most of which are already embodied in Field Service Regulations, are a guide to what should be done to prevent disease:—

1. Commanders will see that the ground allotted to them is kept scrupulously clean.
2. On arrival at a camping ground and before the troops are dismissed, the following arrangements will be explained to the men:—

- (a) Watering places for men and horses.
- (b) Bathing and washing-places.
- (c) Position of kitchens.
- (d) Position of latrines and urinals.
- (e) Position of refuse pits.

3. Pending the construction of latrines, temporary trenches must at once be prepared to prevent soil pollution.
4. Every officer is responsible that all orders affecting the health of an army, especially those relating to water, are carried out. Neglect of sanitary precautions results in loss of life and efficiency, and it is the duty of every soldier, both in his own interest and in that of his comrades, to pay the most careful attention to such instructions.
5. Troops should not march with empty stomachs.
6. Men must be prevented from drinking water that is not pure. They should be trained to economise the contents of their water-bottles, which, before marching, should be filled with weak tea, coffee, or pure water. Early resort to the water-bottle only increases thirst.
7. *Boil* any water of doubtful purity.
8. Vessels containing drinking water should be kept covered.
9. Milk is frequently contaminated, and should be *boiled* before use.
10. The shallow type of trench latrines should be adopted as seldom as possible and must be narrow and comparatively deep to prevent the contents being blown about. The contents should be covered with earth several times during the day. Every man should remember to add a covering of earth after using the latrine. Squatting latrines and latrines provided with seats should be fly-proof. If the lids are not self-closing, men should be particularly careful to close them immediately after use.
11. Urine may spread infection. Men are on no account to urinate elsewhere than in the latrine trenches, or in urinals or pits set apart for the purpose.

12. Latrines, urinals, refuse pits, horse lines, &c., must be sited well away from the water supply and kitchen, and to the leeward side. They must never be placed in or near gullies which discharge into the water supply after rain.
13. Flies carry disease. Food should be protected from them. These insects frequent latrines and refuse pits and horse lines. They breed in filth, so that their prevalence may largely be prevented by keeping all sites, especially horse lines, scrupulously clean, using earth freely in shallow trench latrines, and burning all refuse.
14. All refuse and litter which cannot be burnt should be buried, or removed far from troops.
15. Camps should be thoroughly cleaned when troops leave, all refuse burnt, latrines filled in, *and the sites marked.*

In addition to these rules, personal cleanliness should be strictly observed, and hair kept short. If water cannot be obtained for washing, the skin may be made cleaner by rubbing and exposure to the sun and air. Clothing, especially under-clothing, should be removed when possible and well shaken, turned inside out, and exposed to the sun and air. Feet and socks require careful management, especially in marching units. Teeth must be kept clean. Parts liable to chafe or develop boils should be washed as often as possible—this applies specially to between the legs and the buttocks.

Chill is a frequent cause of sickness. In cold climates it may set up diseases of the throat and lungs, and in hot climates it may induce diarrhoea and other conditions of the bowels.

Men should be careful to cover themselves, or seek shelter from the wind, if possible, after active exercise.

At night it is very important to protect the belly by extra covering. If no blankets are available, any improvised covering will do, such as a belt, an old bag, some straw, or a puttee.

The above shows that health may be maintained and even improved by the soldier's individual assistance, and it is not asking any great sacrifice of men to cultivate the simple habits

that will contribute to preserving their health. This should be a point of honour among soldiers. You are proud of your regiment, and you should endeavour to add to its efficiency by striving each to attain the highest degree of health and fitness. This art can be learned ; it is indeed comprised within a few simple rules. The watchwords are *Cleanliness, Moderation, Pure Air, Self-Control.*

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